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ABSTRACT

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SCHOOL VS. LINKING AGENT:

CONTRIBUTIONS TO THE CHANGE PROCESS

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Abstract

This study examined cooperative planning for change between educational linkers and 11 schools. Qualitative field research methods were used to determine the effects that school context factors, the school-agency relationship, and linking agent behavior had on project outcomes. The school context and the school-agency relationship were more strongly related to how well planning progressed and the degree to which local project ownership developed than the agents' behavior. However, the linkers performed a critical mediating function between the agency's planning procedures and school conditions. Differences in school conditions required the linkers to take different actions to carry out this function, and thus no uniform effects of linking agent behavior were found.

School Vs. Linking Agent:
Contributions to the Change Process

Policy researchers often distinguish between "policy" variables that can be manipulated through governmental intervention and "situational" variables that cannot. While it may be necessary to control for situational variables to eliminate spurious relationships, they argue that policy research questions should examine the relationships between policy variables and outcome variables (Coleman, 1972). Although the emphasis on policy variables makes such research more interesting and perhaps useful to policy makers, it can be misleading when there are interactions between the effects of policy and situational variables or when the situation is especially intractable and poorly understood. In the field of educational change policy initiatives are often blunted by the realities of the school situation. A considerable body of research testifies to the difficulty of promoting constructive change in schools. These studies have identified a variety of situational factors including the quality of local leadership, the collegiality of a staff, and the nature of the motivation to change that can affect the success of a change effort (Berman & McLaughlin, 1977).

Because schools have been especially resistant to the curriculum development and diffusion strategy for producing change at a distance (Welch, 1979), interest is growing in change strategies that put a human agent in direct contact with a school or district. There has been considerable conceptualization and some research on the roles of these "linking agents" and their contributions to the change process (Hood & Cates, 1978). However, in attempting to specify effective linking strategies, little attention has been given to the conditions conducive to the work of linkers. These

conditions include both characteristics of the school setting and the nature of the relationship between the school and the agency employing the linker. An analysis of the contribution of these factors is especially important because linkers are often employed to make subtle adjustments to situations.

The work of Research for Better Schools, Inc. (RBS), an educational laboratory in Philadelphia, provided an opportunity to explore the contributions that the school situation, the linking agent, and the relationship between the two make to the change process. In 1978, the Corporation began a multi-year project to develop approaches that linking agents in a variety of agencies could use to promote program change. These approaches were developed with the assistance of schools in RBS' Pennsylvania-New Jersey-Delaware region. At the same time, the Corporation's Field Studies unit began a research project using qualitative methods to explore the contribution of school contexts and RBS' approaches (including the roles of its linkers) to the change process. This paper presents the results from the first year of field work. The following sections briefly describe the work of RBS, the research methods employed, and initial findings.

The Approaches and the Schools

In the fall of 1978, RBS began work in the field to develop approaches that linking agents could employ to help schools. Three administrative units, or components, developed similar approaches in different content areas: basic skills, career preparation, and citizen education. The approaches were intended to be sets of procedures and materials that linkers could use to help schools identify programmatic weaknesses and develop projects that would overcome those weaknesses while taking local conditions into account. Each entailed similar steps: (1) identification of an initial direction

through goal setting or through selecting variables that have a critical impact on the content area, (2) collecting data on performance relevant to those goals or variables, (3) data analysis, and (4) innovation design. The units varied somewhat in the extent to which the steps were formally codified.

Each component relied on two bodies of knowledge. One was the research in its content field. The other was both research on and normative theories about how to promote change. Special attention was given to examinations of how to produce change rationally--i.e., by making decisions that were technically accurate and based on clear goals and adequate information (Firestone and Herriott, forthcoming). At the same time, the units believed that the success of these change efforts would require a local sense of ownership of the project and that such ownership would be promoted through a cooperative relationship between the school and RBS.

These approaches had a number of implications for the work of linking agents in schools. First, the linkers took a "process helper" role (Piele, 1975). That is, they became involved in the problem-solving process in the school while remaining neutral with respect to the substantive decisions made. However, they did advocate a particular problem-solving strategy, their unit's approach. Second, unlike many "process helper" approaches which focus on development of an individual's interpersonal skills or a group's general capacity to solve problems, the linkers emphasized the technology of instruction in specific content areas. Third, the linkers were working with approaches that were still in the process of development. Each unit devoted many months to reviewing existing literature and developing initial plans before work with schools began. The events reported here

were the first uses of these approaches in the field. Finally, the linkers had some special responsibilities because the approaches were under development. For example, they were expected to report back to in-house technical staff on school responses to materials and procedures and were often involved in writing and revising those procedures.

In the schools linkers worked mostly with a Local Planning Team (LPT) which consisted primarily of teachers and the principal. Other participants included other building level staff, district office staff, community residents, and students. This team had the responsibility for following the steps of the unit's approach and for making decisions on the local change effort.

The three units sought volunteer schools to work with them in developing their approaches. Informants in state departments of education and regional intermediate service agencies were asked to identify potential candidates. After negotiations with several districts, 11 teams were formed in 13 schools (one team included three schools).

The schools varied considerably in a number of ways. Three were high schools, four were elementary schools, and six were junior highs. Enrollments ranged from 375 to 3146. Two schools were in major cities with a population of over 100,000, four were in small cities, three were in suburbs, and four in rural areas. In five schools more than half the enrollment was from minority groups (predominantly black and Hispanic). Unlike many earlier curriculum development efforts which often employed "model" schools that represented ideal situations for a new program, many of the RBS schools had substantial educational problems. Principals estimated that 60 percent or more of the students were at least one year behind in reading and math

in five schools. In addition, eight schools had an influx of 10 percent or more of new students during the course of the year.

Research Methods

This research used a grounded theory-building approach to identify outcomes of the change process and factors that affected them (Glaser & Strauss, 1967). Although a variety of data collection techniques were employed, greatest reliance was placed on direct observation (Firestone & Corbett, 1979). As early as the first meetings in which the development units negotiated a relationship with the schools, Field Studies observers were present both to document initial contacts and describe their specific role. In addition to observation and informal interviewing, the documents and materials prepared by component staff and school participants were collected for analysis.

Field notes from observation and interviewing provided the materials for analysis. To compare the LPTs, a rating procedure was required that avoided a "halo" effect where a team would be rated consistently positively or negatively on all variables because it was considered good or bad. Three steps were followed. First, coders answered 42 questions about each team. To answer the question, the coder formulated a synthesis of all relevant data in the school's file, recorded page numbers and salient quotes, and assessed the quality of the data on which the synthesis was based. This procedure, developed by Moore et al. (1977), helped identify a number of areas where data were inadequate for further analysis. Next, the authors reviewed all coding sheets for each school in order to finalize the variables to be used and rate the teams. This step included reexamination of original field notes and discussions with Field Studies staff familiar with

the site. Finally, the ratings were checked with linkers from the development components to see if they had additional information. Once ratings were finalized with linkers, no adjustments were made. In addition, mini-case studies were written for three of the schools. The data from the cases helped clarify the dynamics of the change process by providing insight into the nature of the relationships among the rated variables.

The remainder of this paper presents the results of the cross-site analysis. Separate sections present findings relevant to outcomes of the change process, school characteristics affecting the process, the effects of the nature of the relationship between linker and school, and linker activities that affected the process.

Outcomes of the Change Process

The RBS approaches were expected to produce both technical and social psychological outcomes. Technically, the approaches were to lead to locally developed plans for change that provided a firm base for implementation by taking into account local needs and constraints and being based on the most advanced research in the content area. It was assumed that a "rational" planning process would produce such plans. Simon (1957) suggests that such a process typically involves at least two tasks: (1) an examination of a school's health which identifies discrepancies between goals and performance, and (2) a search for new practices based on the state-of-the-art that best reduce those discrepancies.

Because the RBS components did not expect their teams to finish planning in the first year, Field Studies could not examine the quality of resulting plans. However, each component developed a sequence of procedures

for teams to follow that included both tasks of rational planning. Hence, it was possible to ask how well each team went through its steps. Three criteria were applied: the timeliness of the process (whether the team got stalled), the team's understanding of the approach, and the team's ability to move beyond discussion of form (i.e., the unit's concepts and procedures) to apply the approach to its own problems.

Five of the teams were rated as going through the steps well. For instance, one school completed all of the planning steps. The team's analysis of its performance data led to some changes in teachers' in-class management practices and recommendations that the district change its policy for scheduling Title I and other classes that required pulling students out of their regular classes. Another team was able not only to move through the steps with minimal assistance, but also to adapt previous work in the curriculum area to current planning. Five other teams went through the steps moderately well. Only one team was rated as poor. It did not actually initiate planning until the next to the last meeting of the year. Earlier meetings were taken up with discussions of whether the school should even plan changes in that content area, complaints about resource deficiencies in the school, and personal attacks by one or two members on the others.

The approaches were intended to develop a social psychological sense of "ownership" of the change project. There is considerable debate in the literature about whether "resistance to change" is the most fundamental barrier to school improvement (Giacquinta, 1973). However, there is some evidence that if teachers feel that a change project is "theirs" and responsive to their concerns, the likelihood that a change will be

implemented and then incorporated into a school's regular way of operating is at least enhanced (Berman & McLaughlin, 1977).

To assess a team's sense of ownership, raters looked for statements that this is "our" team and evidence that members felt a part of what was going on, were willing to work on tasks, and would speak out about their concerns.

Three teams were identified as having a high sense of ownership. One was very careful not to borrow goals for its project from any external source including RBS. Another exhibited a strong interest in meeting activities. For example, when another school in the district began using the approach late in the year and started to catch up, the principal of the team noted that the second school made progress "because we got it together for them." Four teams were classified as having a moderate sense of ownership. For instance, reflecting the heavy amount of training provided by one RBS unit, one team referred to sessions as "workshops" rather than meetings. Members enjoyed some sessions but felt that others were excessively "prepackaged." Finally, four teams were rated low on ownership. On one team a teacher said, "If you can't solve our problems, I won't waste my time." On another, teachers were passive but distrustful; they wondered if the linking agent already had a plan that was being secretly imposed on them.

There was a substantial relationship between the two outcome variables. Three of the five teams that went through the steps well were high on ownership, and the other two were rated as moderate. Two of the five rated moderate or fair on going through the steps had moderate ownership ratings while the other three had low ownership. The team that went through the steps poorly was rated low on ownership.

The case study data suggested a reciprocal relationship between the two outcome variables rather than a single causal direction. In schools where ownership seemed to be high initially, planning went quickly and contributed to solving local problems. On the other hand, in some schools teachers were initially passive, taking a wait-and-see attitude. However, as work progressed smoothly, the relevance of the plans to local problems became more apparent, and a sense of ownership grew.

Sometimes, however, there was a tension between these two desired outcomes. This occured when a team did not have time to perform necessary tasks or did not understand the logic behind some tasks. Under those conditions a choice was necessary between taking action to move through the steps quickly without the full acquiesence of all team members or allowing a good deal of time to discuss why certain procedures were necessary. In either case, the attainment of high levels of both outcomes was precluded.

The School's Contribution

Initial observations suggested that several school factors were important influences on the direction that local projects took. Primary among these seemed to be the support of the central office and the extent to which members adopted a problem-solving motivation to the team's work.

The central office was important for three reasons. First, it usually served as a gatekeeper. Central office personnel could end the recruitment process before RBS ever talked to school personnel; alternatively, they could direct RBS to a specific school. Second, the central

office controlled critical resources, especially the funds for substitutes so teachers could participate in the project. Finally, the district was an important source of endorsement. Since school staff frequently did not know the people from RBS or, in many cases, understand what could be expected of participation in the change effort, central office support often gave some initial indication that the effort would probably "pay off" for the school.

Five schools were rated high on central office support. A high rating indicated that central office representatives gave the project initial endorsement, attended most meetings, and continued to provide release time and other assistance. For instance, one superintendent attended all but one RBS meeting in the district. To persuade principals to do the classroom observations required by the component's approach, the superintendent volunteered to do some. Later, the superintendent told administrators, "I want people to get the 'invented here' message across real strong, and I want to act as if its our program." Five schools were rated moderate because the central office gave initial endorsement but indicated little interest in the project later. One school was rated low on central office support because the central office seemed to tolerate RBS' work but offered little endorsement.

The relationship between central office support and both outcomes was extremely strong and positive. These relationships are illustrated in Figure 1. The relationship with progress through the steps is extremely

Insert Figure 1 about here

strong; there are no off-diagonal schools. The relationship with ownership is also strong, but not perfect. Several schools seemed to maintain reservations about the effort in spite of central office endorsement.

Recent studies indicate that the extent to which participants in a project want to use it to solve some problem they perceive can have important consequences for a change effort. For instance, Greenwood, Mann, and McLaughlin (1975) distinguish between opportunistic and problem-solving motivations for change. An opportunistically motivated change effort is typically a response to available federal funds. Little serious change is attempted, and the project disappears when funds run out. Problem-solving projects emerge from locally defined needs; their implementation often breaks new ground for that school.

Because these newly formed teams could not engage in the indiscriminate search for funds that characterizes opportunism, attention in this study focused on the extent of a team's problem-solving motivation. However, since different levels in a district can identify different problems (Firestone, forthcoming), the motivations of the principal and teachers on the team were examined separately.

A high rating on problem-solving motivation was given where the individual or group seemed to participate in the project solely because of a concern over the substantive area. For example, one principal indicated a strong interest in the RBS unit's curriculum area and reported that the school's parents were similarly concerned. The motivation in these cases stemmed from either an intrinsic interest in the subject area or some problem plaguing the school that [illegible] members thought the RBS unit's approach would solve. Moderate [illegible]m-solving motivation was indicated

where an individual was amenable to the approach but needed some additional impetus to take part. Low problem-solving motivation included passive acceptance--as in the case of one principal who did not attend any team meetings in his school--and active opposition.

The level of problem-solving motivation of principal and teachers did not vary together. For instance, in three of the five teams where the principal's motivation was high, the teachers' motivation was also; however, in the other two teams, the teachers' motivation was low. In one of the two teams where the principal's motivation was low, the teachers' motivation was high. In the other team, the teachers' motivation was low.

The relationship between teachers' problem-solving motivation and the two outcome measures was positive and substantial, although not apparently as strong as was the case with central office support (Figure 2). This relationship was especially strong with the team's sense of ownership. Overall the relationship between the principal's motivation and the outcomes seemed to be much weaker than that for the teachers (Figure 3). The principal's motivation was more strongly related to progress through the steps than to the team's sense of ownership. Generally, it seemed to facilitate planning, but it did not guarantee success.

Differences in motivations between the principals and teachers seemed to inhibit commitment to the project. All four teams where the principal's and teachers' motivations differed were classified as low on ownership, and they made either poor or fair progress through the steps (Figures 2 and 3).

Insert Figure 2 and Figure 3 about here

This pattern suggests that when all parties could not agree that a project would help solve some local problem, the concern of one group could not overcome the lassitude of another.

The RBS-School Relationship

The RBS approaches provided structured activities through which a school could refine diagnoses of its own problems and identify solutions. The use of these approaches was substantially affected by the RBS-school relationship. The case study data suggest that one of the most important characteristics of the RBS-school relationship was the extent of tension that characterized it. Tension usually took the form of distrust or hostility on the part of school people directed towards the component. Until the tension-provoking issue was resolved, little progress would be made in completing the steps, and school participants would withhold commitment to the effort. Extreme tension could lead to termination of the relationship.

Although project-related tension arose periodically at a number of schools, high constant tension was only identified in one school. There some team members continued to attack the component's work until nearly the end of the school year. Five schools were characterized as having moderate tension. For instance, at one there seemed to be a constant level of reserve and distrust. Open hostility erupted briefly when the linker violated the team's understanding of the linker's role by suggesting what the content to be implemented should be. At the five remaining schools, tension was essentially non-existent.

The relationship between component-team tension and both outcomes was was clearly negative (Figure 4). There was a simple linear relationship

Insert Figure 4 about here

between tension and progress through the steps. The relationship with ownership seemed to be more complex. Where there was any tension, there was usually a withholding of commitment. However, the absence of tension did not necessarily lead to strong commitment.

The sources of tension in the relationship stemmed from the agreements that each component reached with its schools. These agreements were essentially unwritten, but they typically consisted of three parts. The most explicit was a core of items that each component considered non-negotiable. These included the content area in which the component would work, the establishment of an LPT with representation at least from the positions specified by the component, and an understanding that the team would follow the component's steps. The second part of the agreement was the school's or team's non-negotiable items. While less clear, this core of non-negotiable items usually reflected established norms and procedures as well as special interests. For instance, district procedures often precluded using teacher in-service days for team meetings. In between these two cores was a third area: a preiphery where a negotiated settlement was possible. This periphery included decisions about a team's exact make-up, the timing of activities, the logistics of data collection for the approach, and the substance of the change developed by a school.

Tension arose primarily because neither the component nor the school could fully identify its core of non-negotiable concerns in advance. When school administrators became aware that the staff's time commitments would

be more extensive than had been initially anticipated or teachers determined that an approach would not address what they viewed as the school's most important problems, they would become angry. Progress would halt until the problem was resolved. Such tension was not uniformly negative, however. Usually the long-run consequences were positive because the school representatives developed a fuller understanding of the approach, the linker developed a compromise that was acceptable to the school, or both.

There was an asymmetry in the nature of the tension in these relationships. Almost always, the initial manifestations of tension came from within the school, and much of the accommodation was made by the component. This asymmetry seemed to reflect the differential dependence of the school and RBS on the relationship. The schools' dependence was relatively low. Each school had a number of sources of assistance from which to choose, and its motivation to change was often weak or mixed. While the RBS components also had a choice of schools, they operated under a set of constraints. For instance, each component worked under a deadline for recruiting schools and developing approaches. Failure to reach agreements or the loss of a school mid-way through the change process would have upset schedules and jeopardized the organizational health of the component.

The Linkers and Their Work

To facilitate the use of the approaches, the linking agent was expected to become familiar with conditions in the school, suggest modifications in the activities to help adapt them to the specific setting, and provide some technical assistance in doing the planning. In addition, the linkers provided some support with the more time-consuming, routine tasks and kept

the groups on task. Initial observations suggested that two aspects of the linker's activities--frequency of contact with the site and the range of site staff contacted--could affect the change process.

It could be argued that frequency of contact would facilitate planning in two ways. First, the linking agent would have a first-hand knowledge of how well site staff understood the nature of the project and would be able to clarify any vague or confusing aspects. By increasing a team's knowledge of the project the agent could expect progress through the steps to be quicker and more effective. Second, by being on site the linker would be in a favorable position to make adjustments in the approach and thereby improve the match between planning procedures and site conditions. Such adjustments would likely increase a team's sense of ownership of the project.

The frequency of linker contact with a site was defined as the number of actual visits a linker made to a site. This number varied from a low of four to a high of greater than 20. Frequency of contact was rated as low if the number of visits was 10 or less and as high if the number was greater than 10. Five sites were rated low, and six were rated high.

There was no relationship between frequency of linker contact and either outcome of the change process (Figure 5). Moreover, because of the

Insert Figure 5 about here

asymmetry of the RBS-school relationship and the risks related to tension, a high frequency of contact was often a response to local problems rather than a proactive effort to keep a project moving. In an example of high frequency contact leading to positive outcomes, the linker devoted a great

deal of time to overcoming the team's initial doubts which then paved the way for later progress. Later on, the linker did most of the data collection in the school. At a school where outcomes were not positive, high frequency of contact was largely a response to the weak motivation of the central office and teachers and the open hostility of some of the latter. Frequent contact was required just to keep the project alive.

Increasing the range of a linker's contacts in a school can be a way to broaden participation in a planning effort. The literature emphasizing the importance of staff ownership as a prerequisite to successful change often advocates extensive participation in decision making as a means to increase ownership, but the evidence is mixed (Giacquinta, 1973). For this analysis, the range of positions contacted was used as an indicator of range of contacts because it seemed that people from different formal positions would be most likely to represent different constituencies in the school and district.

The linker had two ways to affect the range of contacts. One was to encourage the site to include a broad range of positions on the planning team. The other was to meet with smaller groups or single individuals at each school to set agendas for team meetings. Thus, local participants were involved in both planning and doing the team's work. The range of contacts was examined at both levels.

The set of possible positions included: student, teacher, guidance counselor, building-level administrator, district administrator, community representative, and other. Linkers set agendas with incumbents of either one, two, or three of these positions. One was rated low; two and three were

rated high. The number of positions on the team ranged from three to seven. Three and four were considered low; five, six, and seven were rated high.

Interestingly, there was an inverse relationship between the number of positions that helped set agendas and the number of positions on the team. Six of the seven schools with broad-based teams had small agenda-setting groups while all four schools with a low number of positions on the team had a high range of contacts for agenda setting. Apparently, when a linker worked with a large team, it was necessary to form a smaller steering committee to ensure that things worked smoothly. However, a team that was small anyway did not require a separate, smaller planning group.

No relationship was found between the range of contacts with the team and either of the interim outcomes (not shown). Although there seemed to be a very weak positive relationship between the range of contacts with the agenda-setting group and the two outcomes, generally broad-based planning did not seem to do a great deal to facilitate progress through the steps or create a sense of ownership (Figure 6).

Insert Figure 6 about here

While it is clear that a broad range of contacts in a school did not facilitate the use of the RBS approaches, the reason for this finding is less apparent. One possibility is that extensive participation simply does not facilitate change, perhaps because broad participation makes the planning group unwieldy. The inverse relationship between the two range of contact variables indicates that different schools coped with that problem either by having a small team or a large team and a small agenda-setting group.

Finally, further examination of the qualitative data suggests that the formal positions of school contacts for agenda-setting were less important than the amount of influence they had. Smooth progress through the steps depended partially on the ability of agenda setters to command resources and elicit the participation of others. Without influential agenda setters, a team's progress was impeded even when it had representation from a broad range of positions. Moreover, the presence of top-level administrators on a team seemed to stifle the participation of lower participants who were not optimistic about successfully reaching decisions contrary to the wishes of their superiors. In those cases, the development of ownership was problematic because broad representation was not equivalent to shared decision making.

The above findings suggest that there were no linker behaviors that had as uniform an effect on the outcomes of team deliberations as the team's own motivation and the support from the central office. Moreover, as already discussed, linker behaviors were often responses to local conditions rather than proactive interventions.

Linkers were useful, but their contribution resulted from their reactive stance and willingness to make idiosyncratic responses to local conditions. They mediated between elements of the approaches that were designed in an external agency and conditions and beliefs current at the school. They were crucial for navigating the hazards of a particular site and ensuring that the approach was of some use. Some of those adjustments were to the concerns of specific individuals. For instance, when a component approach required collecting data aggregated at the classroom level but a teacher wanted information on specific children, the linker

ensured that forms were developed and data collected on those children in addition to the whole class. Similarly, when teachers were concerned that data collected to make decisions for a change project would be used to evaluate them, the linker found ways to keep information confidential until teachers' confidence in their principal increased.

Linkers faced other problems more regularly. One related to a tension between progressing through the steps of an approach quickly and building a team's sense of ownership. Linkers could resolve this tension by taking on much of the work themselves or with the help of a subset of the team. They might also push ahead in the initial direction even when the team did not fully understand what the approach required. Both steps led to a withdrawal of commitment by team members and often mechanical adherence to the component's procedures.

Conclusion

The findings from this study must be viewed with caution for several reasons. First, the projects described are still underway. Most had not completed planning and begun implementation at the end of the time period covered in this report. Second, the approaches used were in the process of development so one would expect change to go more smoothly with the completed materials and procedures. Finally, programs that employ linkers vary in the intensity of linker contact required and the complexity of the approach employed. The RBS components fall near the high-intensity, high complexity extreme. Nevertheless, the study suggests some conclusions that ought to be considered by policy makers and researchers in future efforts.

Basically, the linker's contribution to the change process is modest. The study did not identify linker activities that uniformly promoted educational change. Indeed, linkers seemed to react to events in a school as much as they provided direction. However, linkers were helpful because they could react and thereby serve as a mediator between agencies. This skill in keeping two agencies working together constructively makes the linker role useful; and given the difficulty in promoting constructive change in schools, the role may even be necessary. Still, it would be a mistake to expect the use of human agents to cause a major revolution in the rate of change in schools or the nature of instructional practice.

Limits to a linker's contribution to change stem from the nature of schools and the relationship between the schools and the agency that hires the linker. The support of district staff for a change effort and the belief of team members that the effort will help solve a locally recognized problem are major facilitators of change efforts. However, people in a school often disagree on what problems should be addressed through what means. Such disagreements can put a strain on the approach and the linker. In fact, on many occasions, the linker may spend more time mediating among individuals or groups within a school than between the school and the agency.

The relationship between the school and the agency can be precarious. Many assistance agencies are more dependent on schools than the schools are on them. The agencies must show that they are helping schools in order to justify their existence and obtain refunding. This is true of both state and federally funded programs. By contrast, the schools' need to change is weaker and penalties for not using services do not exist. Hence, when

tension arises, it is relatively easy for the school to terminate the relationship. Under these circumstances progress halts until the issue is resolved. Although its resolution can build a stronger relationship between school and agency, the linker must deal with the school's doubts and hostility from a position of relative weakness.

The final point is methodological. In complex policy areas, like educational change, it is necessary to look at situational variables as well as policy variables to understand how an intervention works, to formulate recommendations for its improvement, and even to assess whether or not it should be continued. Programs using human agents can only affect a limited number of schools, so they seem to be inefficient (Sieber, 1972). Furthermore, the data presented here indicate that their contribution to the change process is not always great. If one examined only data about the costs and "impact" of linking agents, one might well decide not to use them as a policy tool. However, the primary reason for using such agents is that the situations in which change is attempted are so complex that some on-site adjustor mechanism is necessary. Without a clear understanding of such situations, the whole point of the intervention would be lost.

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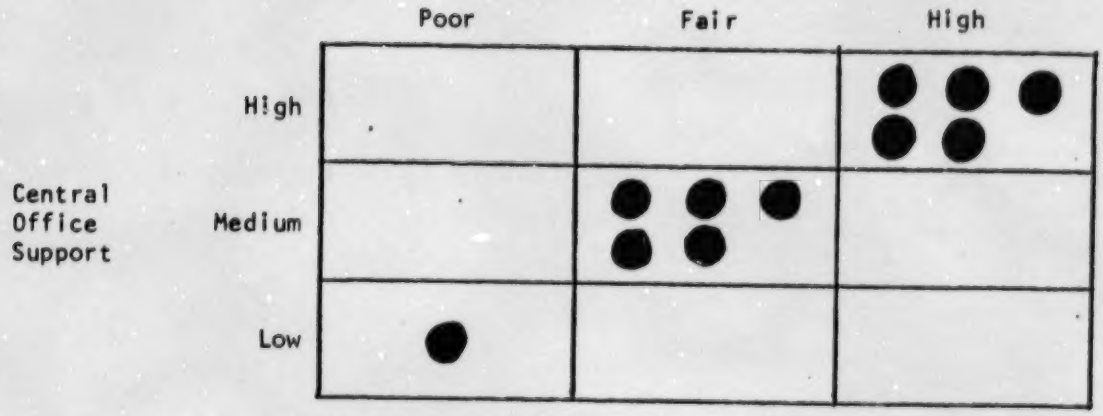
FIGURE 1

CENTRAL OFFICE SUPPORT AND CHANGE PROCESS OUTCOMES

A. Progress Through the Steps



B. Ownership

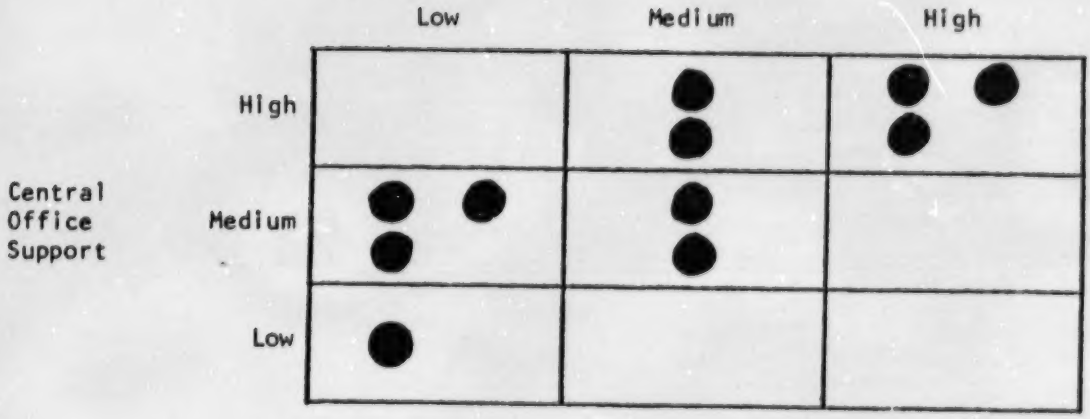
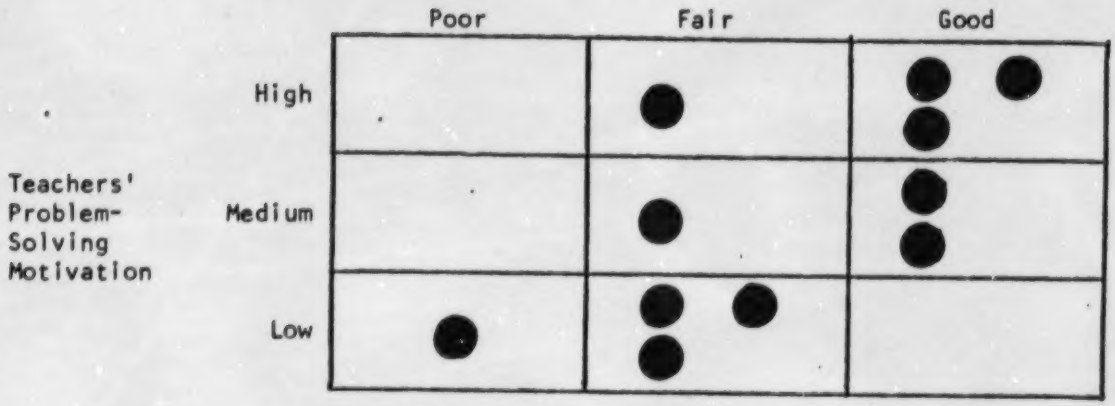


FIGURE 2

TEACHERS' PROBLEM-SOLVING MOTIVATION AND CHANGE OUTCOMES

A. Progress Through the Steps



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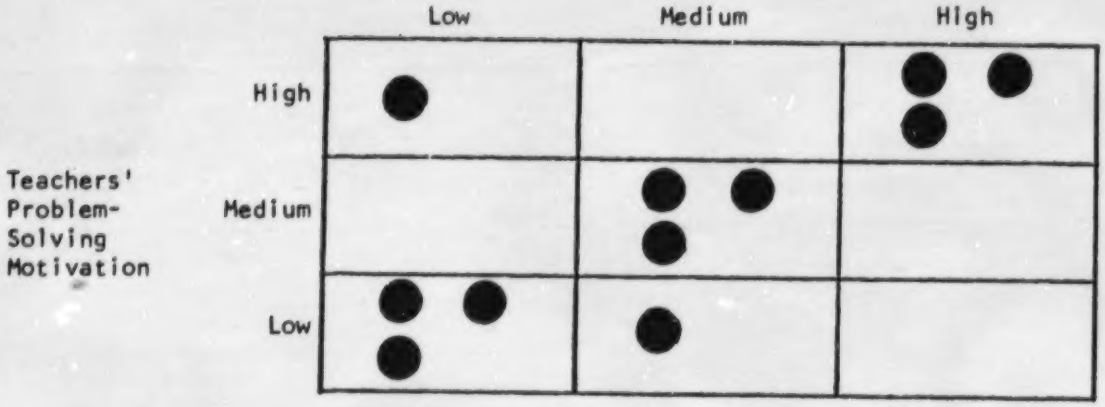
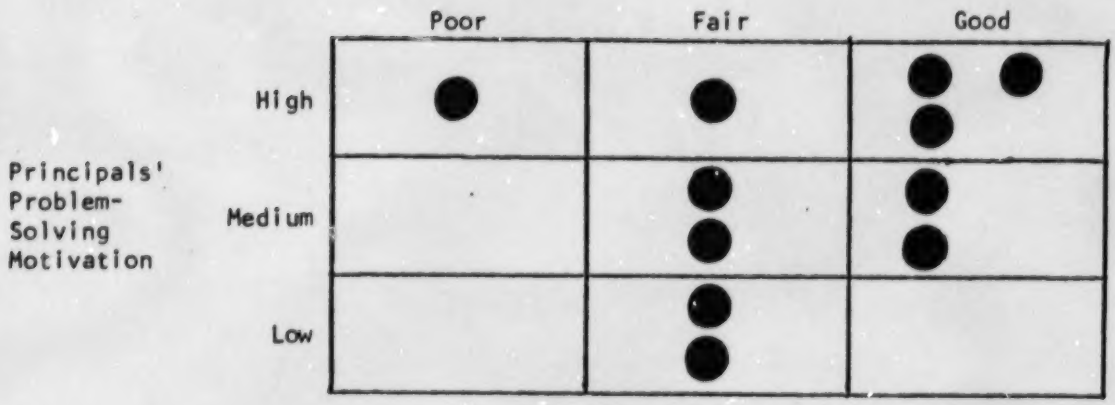


FIGURE 3

PRINCIPALS' PROBLEM-SOLVING MOTIVATION AND CHANGE OUTCOMES

A. Progress Through the Steps



B. Ownership

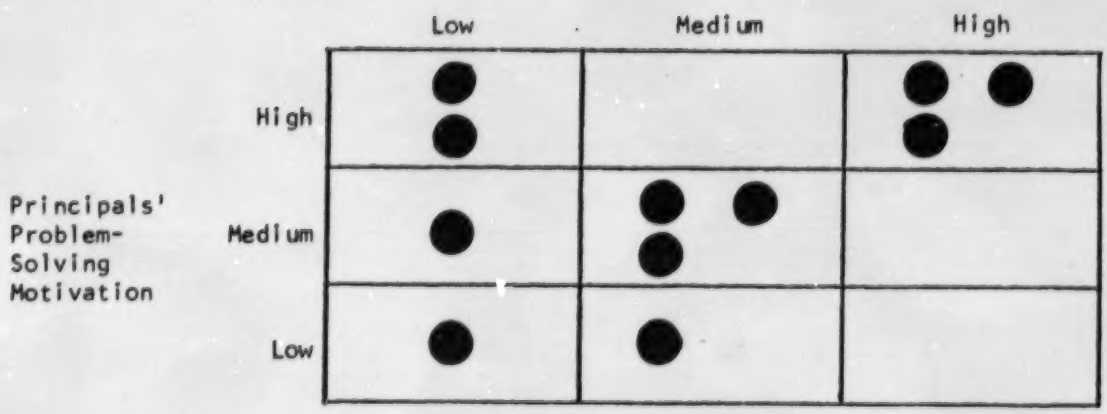
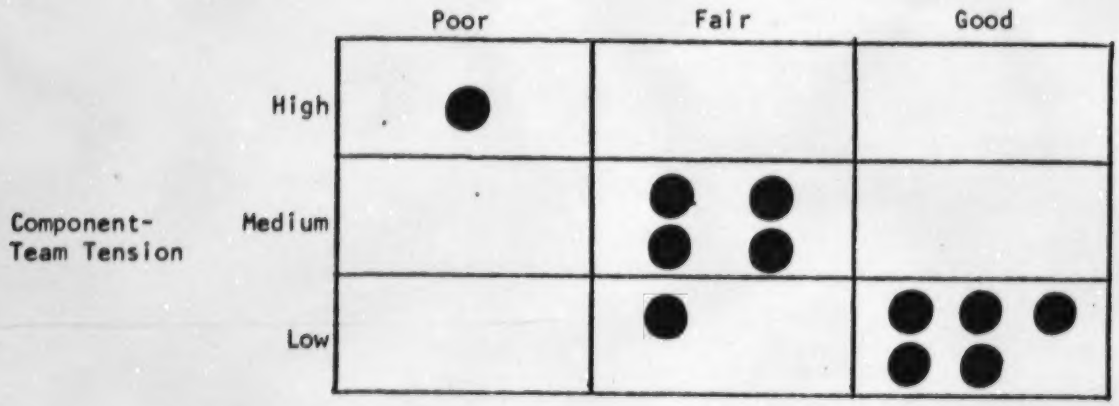


FIGURE 4

TENSION AND CHANGE OUTCOMES

A. Progress Through the Steps



B. Ownership

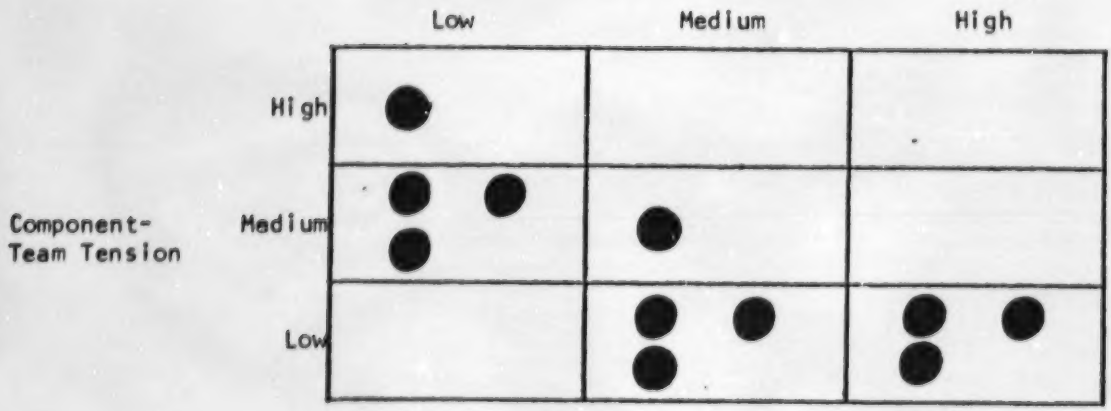
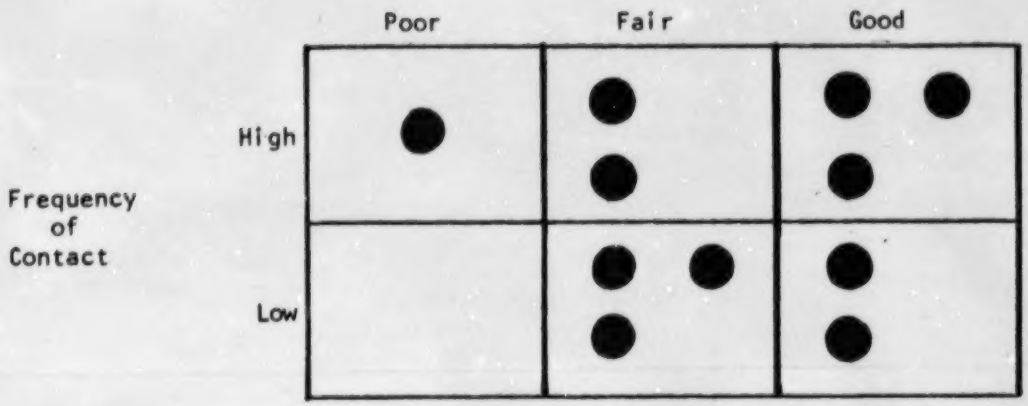


FIGURE 5

FREQUENCY OF CONTACT AND CHANGE OUTCOMES

A. Progress Through the Steps



B. Ownership

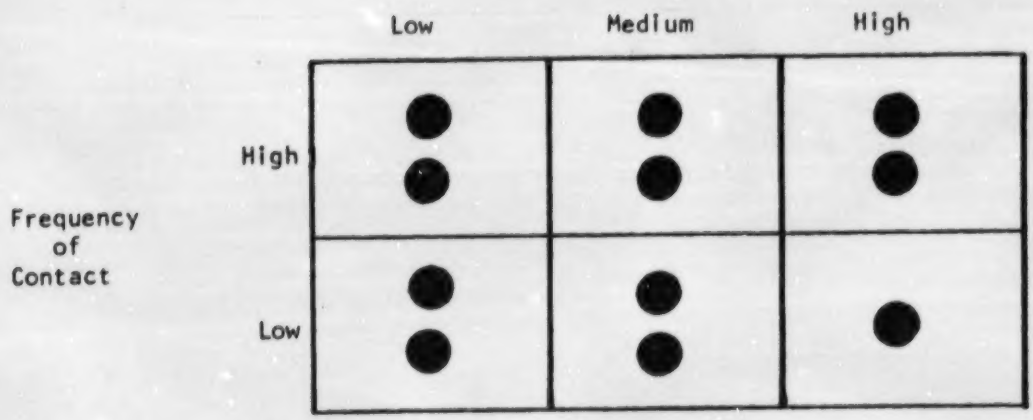
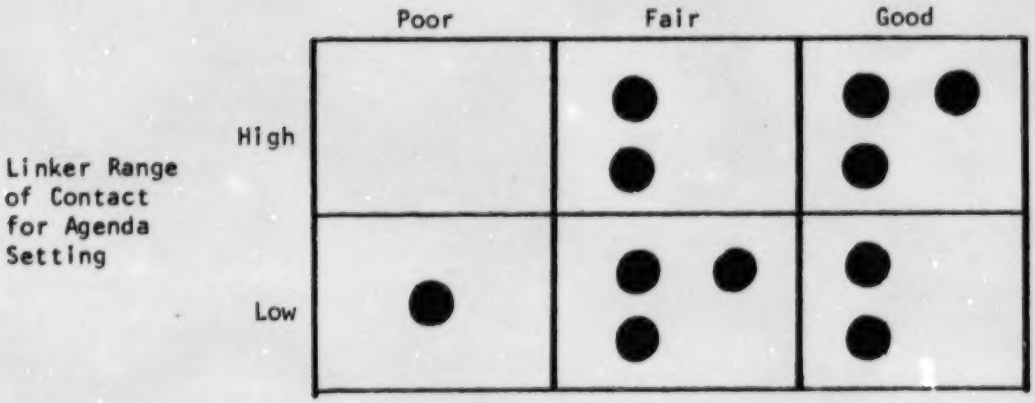


FIGURE 6

RANGE OF CONTACTS FOR AGENDA SETTING AND CHANGE OUTCOMES

A. Progress Through the Steps



B. Ownership